

REMARKS

In the Office Action mailed September 25, 2007, all pending claims 1-29 stand rejected. In response, Applicants have amended claims 1, 3-5, 7, 9-12, 19-20, 22-23, 25 and 27-29; have canceled claim 2; and have added claims 30-32. As such, claims 1 and 3-32 are pending. Applicants respectfully request reconsideration in view of the amendments above and the following remarks.

Examiner Interview

Applicants thank Examiner Phan and Supervising Examiner Strange for the courtesies extended in an interview conducted on March 14, 2008, in which Stephen Schaefer participated on behalf of the Applicants. In the interview, there was discussed a proposed amendment to claim 1, and Applicants' representative explained the basis for patentability of claim 1. Supervising Examiner Strange indicated to Applicants' representative that the amendment to claim 1 appeared to overcome the cited Yamamoto reference (US Pub. 20030043855).

Claim Rejections – 35 USC 102 and 103

Claims 1-9 and 11-29 stand rejected under 35 U.S.C. 102 as allegedly being anticipated by Yamamoto et al. (US Pub. 20030043855) ("Yamamoto"). The remaining dependent claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Gollnick et al. (US Patent 5,940,771) ("Gollnick").

Without conceding the correctness of the standing rejection and in order to advance prosecution on the merits, Applicants have amended each of the pending independent claims 1, 11, 22 and 27-29 to define more particularly the subject matter sought to be protected. Various dependent claims are amended for consistency. The amendments add no new matter. Support for the amendments appear in the specification as originally filed. For example, support for amendments to claims 1 and 27 is provided at least in now-canceled claim 2 and Figure 2 and accompanying text; support for amendments to claims 11 and 28 is provided at least in Figure 2

and accompanying text; and support for amendments to claims 22 and 29 is provided at least in Figure 2 and accompanying text.

Applicants submit that the pending independent claims 1, 11, 22 and 27-29, as amended, define subject matter that is patentable over Yamamoto alone or combined with Gollnick, as do the pending dependent claims.

Yamamoto discloses a communication device and a node device used therein. (Title.) Yamamoto discloses in FIG. 6 an example of a network system using a node device shown in FIGS. 5A and 5B. The network shown in FIG. 6 has four such node devices in a ring topology. (Para. 0061.) Yamamoto discloses the processing of packets received at nodes and the use of buffers in that processing. (For example, Paras. 0032-0059.)

Claims 1-10 and 27

Yamamoto does not disclose or suggest, however, the subject matter as set forth in either of independent claims 1 or 27. For example, Yamamoto does not disclose or suggest a method, as set forth in claims 1 and 27, in which “transmission rounds” and “transit buffer rounds” are used, and in particular does not disclose or suggest a method in which data packets are received at a node, and for each received data packet:

i) if the transmission round identifier for the packet does not match a transmission round identifier for an immediately preceding received data packet, changing a first transit buffer round indicator for a first transit buffer within the specific one node;

ii) if the destination identifier for the data packet does not match the node identifier of the specific one node, storing the data packet in a first transit buffer for later transmission by the specific one node to another node in the first direction, the first data packet being stored with a transit buffer round indicator that equals the current first transit buffer round indicator for the first transit buffer; and

iii) if the destination identifier of the data packet matches the node identifier, processing the data packet on the specific one node.

In addition, for example, Yamamoto does not disclose or suggest a method, as set forth in Applicants' claims 1 and 27, as amended, in which data packets are transmitted “from the specific one node in the first direction in successive transmission rounds, wherein in each successive

transmission round there is transmitted i) one or more data packets from the first transit buffer that each have the same assigned transit buffer round identifier, if any data packets are present in the first transit buffer, and ii) one or more data packets from the first local buffer, if any data packets are present in the first local buffer.”

Neither does Yamamoto or any other reference of record render Applicants' claimed subject matter obvious. Applicants has come up with a new and non-obvious way of efficiently moving data through networks such as ring or daisy-chain networks. In particular, the method intermingles both packets originating in the node (and stored in the local buffer) and packets originating from other nodes (and stored in the transit buffer) in an efficient and fair manner, without one node acquiring too much control, and without there being a need for central administration of packet flow throughout the network. This is done by creating transmission “rounds,” or “cycles,” in which both one or more packets from the transit buffer are sent (if any such packets are present) and one or more packets from the local buffer are sent also (again, if any such packets are present). In addition, only packets from the transit buffer with the same transit buffer round identifier (which means they were part of the same transmission round of the prior node in the sequence) can be transmitted from the node in the same round; this puts a limit on the number of successive packets not originating in the node that are sent, and allows nodes originating in the node to have fair opportunity to be sent. There is no disclosure or suggestion of such a scheme in Yamamoto, or in Gollnick.

Accordingly, Applicants respectfully request that the rejection of independent claims 1, 3-10 and 27 based on Yamamoto be withdrawn.

Claims 11-21 and 28

Yamamoto also does not disclose or suggest the subject matter as set forth in either of independent claims 11 or 28, as amended. For example, Yamamoto does not disclose or suggest a method, as set forth in claims 11 and 28, that makes use of a “transit buffer” and a “local buffer,” as previously discussed in connection with claims 1 and 27. In addition, Yamamoto does not disclose or suggest the claimed transmission pattern that fairly and efficiently allows data to be transmitted from both buffers, with local and autonomous control as discussed above in connection with claims 1 and 27. Further yet, Yamamoto does not disclose or suggest the use

of a "first transmission condition" to determine whether a packet from the transit buffer or from the local buffer is to be sent next.

Accordingly, Applicants respectfully request that the rejection of independent claims 11-21 and 28 based on Yamamoto be withdrawn.

Claims 22-27 and 29

Yamamoto also does not disclose or suggest the subject matter as set forth in either of independent claims 22 or 29, as amended. For example, Yamamoto does not disclose or suggest a method or corresponding network, as set forth in claims 22 and 29, that makes use of nodes with "transit buffers" and a "local buffers," as previously discussed. In addition, Yamamoto does not disclose or suggest, as recited in claim 22 and similarly claimed in claim 29, "using the local buffers and the transit buffers to process data between the nodes in processing cycles, ... wherein each node transmits to another node, in each successive processing cycle, i) one or more data packets from the transit buffer that were each transmitted by a prior node in the same processing cycle, if any data packets are present in the first transit buffer, and ii) one or more data packets from the first local buffer, if any data packets are present in the first local buffer."

Accordingly, Applicants respectfully request that the rejection of independent claims 11-21 and 28 based on Yamamoto be withdrawn.

New claims 30-32

Dependent claims 30-32 are added to claim more completely the subject matter sought to be protected. These dependent claims depend either directly or indirectly from independent claim 11. The added claims add no new matter. Support for the added claims appears in the specification as originally filed, for example, page 7, line 13 through page 10, line 13.

Dependent claims 30-32 are patentable at least for the reasons discussed above in connection with claim 11. As such, Applicants respectfully request that claims 30-32 be allowed.

Conclusion

Applicants submit that claims 1 and 3-32 are in condition for allowance, and request issuance of a notice of allowance.

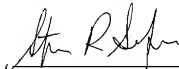
It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please charge Deposit Account No. 06-1050 in the amount of \$75 for excess claim fees and \$525 for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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